



BUILDING GLOBAL COMMUNICATIONS

November 11, 2008

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

RE: WT Docket No. 99-87

Dear Ms. Dortch:

Attached is a copy of a letter sent electronically to Mr. Schlichting and Mr. Poarch as the Acting Chief of the Wireless Telecommunications Bureau, and as Chief of the Public Safety and Homeland Security Bureau; and a copy of a letter sent to Mr. Knapp as Chief of the Office of Engineering and Technology.

Both letters address issues in relation to the 12.5 kHz technology mandates for the spectrum below 512 MHz, which such mandates have been adopted in the above referenced proceeding.

If there are any questions, or if there is any additional information you need, please do not hesitate to contact me.

Regards,

A handwritten signature in black ink, appearing to read "Robert J. Speidel", is written over a horizontal line.

Robert J. Speidel, Esq.
Chairman, TIA Private Radio Section
Manager, Government Affairs-Regulatory Policy
Tyco Electronics (WNS) P.O. Box 2000
Lynchburg, VA 24501 USA



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November 11, 2008

Mr. James Schlichting
Acting Chief
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Mr. Derek K. Poarch
Chief
Public Safety and Homeland Security Bureau
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

In Re: Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies,
WT Docket No. 99-87

Dear Mr. Schlichting and Mr. Poarch:

In approximately two years, the Commission's decision to require existing private land mobile radio (PLMR) licensees operating on frequencies between 150 MHz and 512 MHz to use 12.5 kHz (or equivalent efficiency) equipment will begin to take effect. In support of these pending changes, the companies that comprise TIA's Private Radio Section (TIA-PRS) are working diligently to ensure that a full range of products are available as soon as possible so that licensees can meet the FCC's mandates in an organized and coordinated manner. Many licensees are already engaged in both planning and implementing their transitions to more efficient technology in order to spread costs over multiple years and to avoid a flash-cut transition at the Commission's deadline dates. As they do so, licensees often reach out to their equipment vendors for assistance on developing the appropriate schedule for replacing existing equipment that meets their own specific needs.

In this informal role as regulatory consultants and advisors to end user licensees, the member organizations of TIA-PRS have received numerous inquiries from licensees regarding the exact nature of the licensees' actions necessary to satisfy the January 1, 2013 mandate for utilization of 12.5 kHz technologies. Many licensees have also asked TIA-PRS member companies what sanctions they can expect to see in the event they are unable to complete the exact steps required of licensees to satisfy the January 1, 2013 mandates.

On January 14, 2008 the Land Mobile Communications Council filed a letter with Fred Campbell, Chief of the Wireless Telecommunications Bureau. The LMCC letter and its' attachments proposed steps the licensees must take to meet the January 1, 2011 and January 1, 2013 benchmarks. The LMCC letter and attachments also proposed sanctions against licensees who failed to meet the appropriate benchmarks. TIA-PRS supports the January 14, 2008 LMCC letter to Mr. Campbell and requests the Commission proceed accordingly

TIA PRS has also identified certification issues associated with the January, 2011 and January, 2013 dates and we have been in contact with Julius Knapp, Chief of the Office of Engineering and Technology on these issues. Due to the nature of the issues being discussed with Mr. Knapp and his staff, TIA-PRS has proposed face to face meetings at the Commission between TIA PRS members and OET as a means of expeditiously addressing and resolving the matters. Because the certification issues identified with OET are closely related with the issues identified in the LMCC letter of January 14, 2008 we believe it would be helpful to arrange in-person meetings with WTB and PSHSB leadership and staff to further discuss TIA PRS support of the issues and proposals outlined in the LMCC letter. The National Public Safety Telecommunications Council (NPSTC) and several FCC certified frequency advisory committees have expressed an interest in these matters as well. To assure that the viewpoints from all relevant parties may be heard, we recommend that representatives from LMCC and NPSTC, as well as TIA, be invited to participate in this prospective meeting.

Thank you for your consideration in addressing these issues of importance to PLMR licensees and manufacturers. I will be in contact very soon.

Regards,

A handwritten signature in cursive script, appearing to read "Robert J. Speidel".

Robert J. Speidel, Esq.
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Manager, Government Affairs-Regulatory Policy
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Cc: Mr. Al Ittner
President, Land Mobile Communications Council

Mr. Ralph Haller
Chair, National Public Safety Telecommunications Council

Mr. Donald Vasek
Secretary, Land Mobile Communications Council

Julius P. Knapp
Chief
Office of Engineering and Technology

Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

WT Docket No. 99-87

§ 90.209 Bandwidth limitations.

* * *

(b) The maximum authorized single channel bandwidth of emission corresponding to the type of emission specified in §90.207 of this part is as follows:

* * *

- (6)(i) Beginning January 1, 2011, no new applications for the 150-174 MHz and/or 421-512 MHz bands will be acceptable for filing if the applicant utilizes channels with an authorized bandwidth exceeding 11.25 kHz, unless specified elsewhere or the operations meet the efficiency standards of Sec. 90.203(j)(3).
- (ii) Beginning January 1, 2011, no modification applications for stations in the 150-174 MHz and/or 421-512 MHz bands that increase the station's authorized interference contour, will be acceptable for filing if the applicant utilizes channels with an authorized bandwidth exceeding 11.25 kHz, unless specified elsewhere or the operations meet the efficiency standards of §90.203(j)(3). See §90.187(b)(2)(iii) and (iv) for interference contour designations and calculations. Applications submitted pursuant to this paragraph must comply with frequency coordination requirements of §90.175.



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November 11, 2008

Mr. Julius P. Knapp
Chief
Office of Engineering and Technology
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

In Re: Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies,
WT Docket No. 99-87

Dear Mr. Knapp:

In approximately two years, the Commission's decision to require existing private land mobile radio (PLMR) licensees operating on frequencies between 150 MHz and 512 MHz to use 12.5 kHz (or equivalent efficiency) equipment will begin to take effect. In support of these pending changes, the companies that comprise TIA's Private Radio Section (TIA-PRS) are working diligently to ensure that a full range of products are available as soon as possible so that licensees can meet the FCC's mandates in an organized and coordinated manner. Many licensees are already engaged in both planning and implementing their transitions to more efficient technology in order to spread costs over multiple years and to avoid a flash-cut transition at the Commission's deadline dates. As they do so, licensees often reach out to their equipment vendors for assistance on developing the appropriate schedule for replacing existing equipment that meets their own specific needs.

In this informal role as regulatory consultants and advisors to end user licensees, the member organizations of TIA-PRS have discovered some issues that warrant FCC clarification. By identifying these issues now – more than two years before the initial transition – TIA-PRS hopes to expedite Commission clarification well in advance of the relevant deadlines for the transition. Also, FCC clarifications will assist PLMR licensees to identify and implement necessary system transition strategies.

The following specific issues of relevance to the Office of Engineering and Technology are raised herein. First, effective January 1, 2011, Section 90.203(j)(10) restricts the manufacture and importation of single-mode and multi-mode transmitters that operate with a maximum channel bandwidth greater than 12.5 kHz except to the extent such equipment complies with the equivalent efficiency standard of 1 voice path per 12.5

kHz of channel bandwidth.¹ Commission rules require that equipment for which certification applications were filed on or after February 14, 1997, include a 12.5 kHz efficiency mode of operation. Because 25 kHz FM analog service provides backward compatibility and interoperability for numerous public safety and business enterprise licensees in these bands, manufacturers have included 25 kHz technologies, e.g. technologies providing 1 voice path in 25 kHz of occupied bandwidth, in many multi-mode transmitter designs for the past 10-15 years. Accordingly, most multimode equipment manufactured or imported today includes modes of operation for both 12.5 and 25 kHz technologies to respond to customers' requirements. Given modern equipment designs, these modes of operation are enabled primarily through software programming rather than firmware or hardware.

Equipment manufactured or imported into the US on or after January 1, 2011, may not provide users with a mode of operation for one voice path per 25 kHz, i.e. 25 kHz technologies. TIA-PRS recommends that for equipment designed to operate in the 150.8-162.0125 MHz, 173.2-173.4 MHz, and/or 421-512 MHz bands, which equipment is manufactured or imported into the US on or after January 1, 2011, users would not be provided with the programming software necessary to activate the 25 kHz technologies' modes of operation. *TIA asks the Commission to clarify that not providing programming software capable of activating the 25 kHz technologies modes of operation as being fully compliant with the January 1, 2011 mandate regarding the manufacture and importation of equipment for the bands below 512 MHz.* TIA-PRS also recommends the Commission clarify that no changes to equipment certifications for equipment in the 150.8-162.0125 MHz, 173.2-173.4 MHz, and/or 421-512 MHz bands granted prior to January 1, 2011, will be required and that the certifications granted pursuant to applications filed prior to January 1, 2011, remain valid provided no 25 kHz technology programming is provided with equipments manufactured or imported on or after January 1, 2011. Alternatively, if the Commission believes changes to certifications granted pursuant to applications filed prior to January 1, 2011 are necessary, then TIA-PRS recommends that such changes to those certifications be treated as Class I permissive changes.² *TIA-PRS believes the Commission should clarify that the recommendations outlined herein concerning the mandate against the manufacture or importation of 25 kHz technologies is fully compliant with the requirements of Section 90.203(j)(10).*

The second issue TIA-PRS believes the Commission should clarify relates to the exemption for hand-held transmitters having an output power of two watts or less from the requirements of Section 90.203(j)(4). By exempting low power handsets from the provisions of Section 90.203(j)(4), the Commission seemingly will continue to allow certification of such transmitters even though they only comply with the requirements of Section 90.203(j)(3), which requires an efficiency standard of one voice path per 12.5 kHz and/or the relevant data rate requirements, as applicable?³ However, Section 90.203(j)(5)

¹ By statute, the FCC's narrowbanding rules do not apply to radios manufactured solely for export. See Section 2.807 of the Commission's Rules. For ease of reference, the relevant paragraphs of Parts 2 and 90 referenced in this letter are shown in the attached appendix.

² See Section 2.1043 (b)(1) of the Commission's Rules.

³ This interpretation is consistent with the provisions of Section 90.203(j)(10), which allows for the continued manufacture and importation of single-mode transmitters with a maximum channel bandwidth

seemingly requires certification applications for all transmitters designed to operate on frequencies in the 150.8-162.0125 MHz, 173.2-173.4 MHz, and/or 421-512 MHz bands, received on or after January 1, 2011, to include a certification that the equipment meets a spectrum efficiency standard of one voice channel per 6.25 kHz of channel bandwidth. However, Section 90.203(j)(5) does not include an exemption for hand-held transmitters having an output power of two watts or less. *TIA-PRS requests the Commission to clarify or confirm that it intends to allow applications for certification of hand-held transmitters having an output power of two watts or less designed to operate on frequencies in the 150.8-162.0125 MHz, 173.2-173.4 MHz, and/or 421-512 MHz bands, on or after January 1, 2011, even though such transmitters only comply with the certification efficiency requirements of Section 90.203(j)(3).*

Due to the nature of these issues and the near term impact on PLMR manufacturers and licensees, we believe that it would be helpful to arrange an in-person meeting to further discuss these matters. The National Public Safety Telecommunications Council (NPSTC) and several FCC certified frequency advisory committees have expressed an interest in these matters as well. To assure that the viewpoints from all relevant parties may be heard, we recommend that representatives from LMCC and NPSTC, as well as TIA, be invited to participate in this prospective meeting.

Thank you for your consideration in addressing these issues of importance to PLMR licensees and manufacturers. I will be in contact very soon.

Regards,



Robert J. Speidel, Esq.
Chairman, TIA Private Radio Section
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cc: Mr. Al Ittner
President, Land Mobile Communications Council

Mr. Ralph Haller
Chair, National Public Safety Telecommunications Council

greater than 12.5 kHz after January 1, 2011, provided that the equipment meets the efficiency standard of Section 90.203(j)(3).

Mr. Donald Vasek
Secretary, Land Mobile Communications Council

James Schlichting
Acting Chief
Wireless Telecommunications Bureau

Derek K. Poarch
Chief
Public Safety and Homeland Security Bureau

Secretary
Federal Communications Commission
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WT Docket No. 99-87

VHF/UHF Narrowbanding Rules (as of October, 2008)

§90.203 Certification required.

* * *

(j)(3) Applications for part 90 certification of transmitters designed to operate on frequencies in the 150.8-162.0125 MHz, 173.2-173.4 MHz, and/or 421-512 MHz bands, received on or after February 14, 1997 must include a certification that the equipment meets a spectrum efficiency standard of one voice channel per 12.5 kHz of channel bandwidth. Additionally, if the equipment is capable of transmitting data, has transmitter output power greater than 500 mW, and has a channel bandwidth of more than 6.25 kHz, the equipment must be capable of supporting a minimum data rate of 4800 bits per second per 6.25 kHz of channel bandwidth.

(j)(4) Applications for part 90 certification of transmitters designed to operate on frequencies in the 150.8-162.0125 MHz, 173.2-173.4 MHz, and/or 421-512 MHz bands, received on or after January 1, 2011, except for hand-held transmitters with an output power of two watts or less, will only be granted for equipment with the following channel bandwidths:

- (i) 6.25 kHz or less for single bandwidth mode equipment;
- (ii) 12.5 kHz for multi-bandwidth mode equipment with a maximum channel bandwidth of 12.5 kHz if it is capable of operating on channels of 6.25 kHz or less;
- (iii) 25 kHz for multi-bandwidth mode equipment with a maximum channel bandwidth of 25 kHz if it is capable of operating on channels of 6.25 kHz or less; and
- (iv) Up to 25 kHz if the equipment meets the efficiency standard of paragraph (j)(5) of this section.

(5) Applications for part 90 certification of transmitters designed to operate on frequencies in the 150.8-162.0125 MHz, 173.2-173.4 MHz, and/or 421-512 MHz bands, received on or after January 1, 2011, must include a certification that the equipment meets a spectrum efficiency standard of one voice channel per 6.25 kHz of channel bandwidth. Additionally, if the equipment is capable of transmitting data, has transmitter output power greater than 500 mW, and has a channel bandwidth of more than 6.25 kHz, the equipment must be capable of supporting a minimum data rate of 4800 bits per second per 6.25 kHz of channel bandwidth.

* * *

(j)(10) Except as provided in this paragraph, single-mode and multi-mode transmitters designed to operate in the 150-174 MHz and 421-512 MHz bands that operate with a maximum channel bandwidth greater than 12.5 kHz shall not be manufactured in, or imported into, the United States after January 1, 2011, except as follows:

- (i) To the extent that the equipment meets the efficiency standard of paragraph (j)(3) of this section, or
- (ii) Where operation with a bandwidth greater than 12.5 kHz is specified elsewhere.

§ 2.807 Statutory exceptions.

* * *

As provided by Section 302(c) of the Communications Act of 1934, as amended, §2.803 shall not be applicable to:

- (b) Radiofrequency devices manufactured solely for export.

§ 2.1043 Changes in certificated equipment.

(a) * * *

(b) Three classes of permissive changes may be made in certificated equipment without requiring a new application for and grant of certification. None of the classes of changes shall result in a change in identification.

(1) A Class I permissive change includes those modifications in the equipment which do not degrade the characteristics reported by the manufacturer and accepted by the Commission when certification is granted. No filing with the Commission is required for a Class I permissive change.

* * * * *